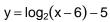
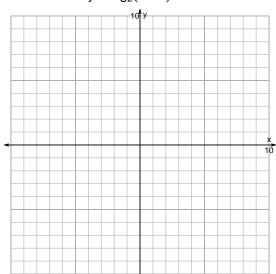
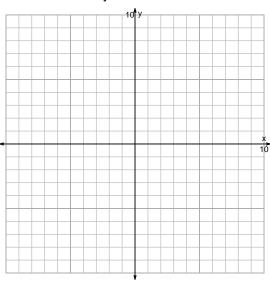
s18quiz: EXP LOG (Example v8)

1. Graph  $y = \log_2(x-6) - 5$  and  $y = 2^{x-6} - 5$  on the grids below. Also, draw any asymptotes with dotted lines.





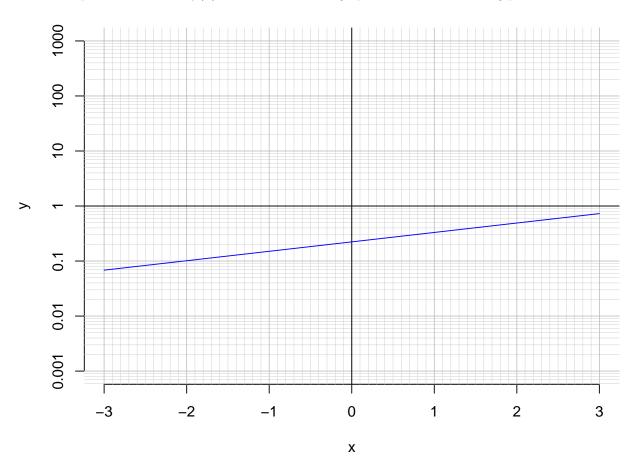
$$y = 2^{x-6} - 5$$



2. Write (but do not evaluate) the solution to the equation below by writing a logarithmic expression.

$$19 = \left(\frac{4}{5}\right) \cdot 2^{3t/7}$$

3. An exponential function  $f(x) = 0.223 \cdot e^{0.394x}$  is graphed below on a semi-log plot.



a. Using the plot above, evaluate f(2.9).

- b. Express  $f^{-1}(x)$ , the inverse of f.
- c. Using the plot above, evaluate  $f^{-1}(0.08)$ .